

IN THE CLAIMS

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This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Original) A drug that comprises hollow nanoparticles of a particle-forming protein, the hollow nanoparticles displaying an antibody against a specific cell or specific tissue, and encapsulating a substance to be transferred into a cell for treating a disease.

2. (Original) The drug as set forth in claim 1, wherein the antibody is a cancer specific antibody or anti-virus protein antibody.

3. (Currently Amended) The drug as set forth in claim 1 ~~or 2~~, wherein the antibody is displayed on a particle surface by binding to a ZZ tag fused with the particle-forming protein.

4. (Currently Amended) The drug as set forth in claim 1 ~~or 2~~, wherein the antibody is biotin-modified and displayed on a particle surface with its biotin binding to streptavidin or its derivative that is ligated to a streptag fused with the particle-forming protein.

5. (Currently Amended) The drug as set forth in claim 1 ~~or 2~~, wherein the antibody is a single chain antibody fused with the particle-forming protein.

6. (Currently Amended) The drug as set forth in ~~any one of~~ claims 1 ~~through 5~~, wherein the hollow nanoparticles of a particle-forming protein are expressed in a eukaryotic cell.

7. (Original) The drug as set forth in claim 6, wherein the eukaryotic cell is selected from a group consisting of a yeast cell, insect cell, and animal cell.

8. (Currently Amended) The drug as set forth in ~~any one of claims 1 through 7~~, wherein the particle-forming protein comprises a modified hepatitis B virus surface-antigen protein.

9. (Original) The drug as set forth in claim 8, wherein the modified hepatitis B virus surface-antigen protein is modified to lack some of amino acids in a pre-S region.

10. (Currently Amended) The drug as set forth in claim 8 ~~or 9~~, wherein the modified hepatitis B virus surface-antigen protein is serotype y, and modified to retain at least N-terminal amino acid residues 1 to 20 in the entire amino acid sequence of the pre-S region.

11. (Original) The drug as set forth in claim 10, wherein the modified hepatitis B virus surface-antigen protein is modified to lack N-terminal amino acids 50 to 153 in the entire amino acid sequence of the pre-S region.

12. (Currently Amended) The drug as set forth in claim 8 ~~or 9~~, wherein the modified hepatitis B virus surface-antigen protein is serotype d, and modified to retain at least N-terminal amino acid residues 12 to 31 in the entire amino acid sequence of the pre-S region.

13. (Original) The drug as set forth in claim 12, wherein the modified hepatitis B virus surface-antigen protein is modified to lack N-terminal amino acids 61 to 164 in the entire amino acid

sequence of the pre-S region.

14. (Currently Amended) The drug as set forth in ~~any one of claims 1 through 13~~, wherein the disease-treating substance comprises a gene.

15. (Original) The drug as set forth in claim 14, wherein the gene comprises a thymidine kinase (HSV1tk) gene derived from simple herpes virus.

16. (Currently Amended) The drug as set forth in ~~any one of claims 1 through 15~~, wherein the drug is administered to the human body through intravenous injection.

17. (Currently Amended) A disease treating method comprising administering the drug of ~~any one of claims 1 through 16~~.

18. (Original) Hollow nanoparticles that comprise a hepatitis B virus surface-antigen protein of serotype y, the hepatitis B virus surface-antigen protein forming particles and being modified to retain at least N-terminal amino acid residues 1 to 20 in the entire amino acid sequence of a pre-S region.

19. (Original) The hollow nanoparticles as set forth in claim 18, wherein the modified hepatitis B virus surface-antigen protein is modified to lack N-terminal amino acids 50 to 153 in the entire amino acid sequence of the pre-S region.

20. (Original) Hollow nanoparticles that comprise a hepatitis B virus surface-antigen protein of serotype d, the hepatitis B virus surface-antigen protein forming particles and being modified to retain at least N-terminal amino acid residues

12 to 31 in the entire amino acid sequence of a pre-S region.

21. (Original) The hollow nanoparticles as set forth in claim 20, wherein the modified hepatitis B virus surface-antigen protein is modified to lack N-terminal amino acids 61 to 164 in the entire amino acid sequence of the pre-S region.

22. (New) The drug as set forth in claim 2, wherein the antibody is displayed on a particle surface by binding to a ZZ tag fused with the particle-forming protein.

23. (New) The drug as set forth in claim 2, wherein the antibody is biotin-modified and displayed on a particle surface with its biotin binding to streptavidin or its derivative that is ligated to a streptag fused with the particle-forming protein.

24. (New) The drug as set forth in claim 2, wherein the antibody is a single chain antibody fused with the particle-forming protein.

25. (New) The drug as set forth in claim 2, wherein the hollow nanoparticles of a particle-forming protein are expressed in a eukaryotic cell.

26. (New) The drug as set forth in claim 9, wherein the modified hepatitis B virus surface-antigen protein is serotype y, and modified to retain at least N-terminal amino acid residues 1 to 20 in the entire amino acid sequence of the pre-S region.

27. (New) The drug as set forth in claim 9, wherein the modified hepatitis B virus surface-antigen protein is serotype d, and modified to retain at least N-terminal amino acid residues 12 to 31 in the entire amino acid sequence of the pre-S region.

28. (New) A disease treating method comprising administering the drug of claim 2.